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Four Years of Innovation and Continuity in U.S. Policy: Arms Control and International Security Since January 2017

by Christopher A. Ford



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In this ACIS Paper, Assistant Secretary Ford looks across the policy arenas covered by the State Department's "T" family of bureaus to provide a survey and summary of policy development and innovation in key issue areas since the current U.S. administration took office in January 2017.

With the 2020 U.S. Presidential election now behind us, and the U.S. government poised to transfer to a new administration, this paper surveys a range of U.S. foreign and national security policy developments since the current U.S. administration took office in January 2017. The subject matter of this survey will, loosely, be those issues dealt with by the so-called "T" family of bureaus at the U.S. Department of State: the units that report to the Under Secretary for Arms Control and International Security ("T") – that is, the Bureaus of Arms Control, Verification, and Compliance (AVC), Political-Military Affairs (PM), and International Security and Nonproliferation (ISN), as well as the Office of the Cyber Coordinator (CCI). We hope that this *tour d'horizon* will be useful in helping clarify what we have done and the issues we have faced in order to assist our successors with a smooth transition, and to maximize future policy effectiveness in the best interests of the American people and our national security.

From the perspective of the "T" suite, it has certainly been a tumultuous few years, marked perhaps most of all by the U.S. Government's eventual recognition that, despite the fond hopes of many in earlier years when so much of the [post-Cold War international security agenda was set in place](#) as received conventional wisdom, the global security environment has not become an enduringly benign one in which the Russian Federation and the People's Republic of China (PRC) have continued along some assumed trajectory of political and economic convergence that will enable indefinitely-extended progress on a range of international security issues along the way to a presumptively happy, prosperous, and peaceful future. To the contrary, it has become clear that both of those governments have set for themselves a strategic agenda – doggedly pursued for years even before January 2017 – of *changing* the security environment to their advantage, and to the great *disadvantage* of the democracies of the world and the free and open

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international order that the U.S. policy community has long taken for granted.

Those regimes' [destabilizing geopolitical revisionism has become a key feature of the security environment](#), with both a recklessly risk-tolerant Russia destabilizing the political order to create space for its own re-assertion and re-litigation of much of the post-Soviet dispensation of the early post-Cold War years, and an aggressively "risen" and [revanchist PRC increasingly seeking to restructure the international order around itself](#) and its model of technology-facilitated authoritarianism. *Responding* to this revisionism, in turn, has thus necessarily become the *sine qua non* of U.S. international security policy.

At the same time, proliferation challenges, terrorism threats, and wide-ranging problems of regional instability have hardly abated, even as weapons of mass destruction (WMD) programs in key countries of concern have accelerated – including North Korea's development of a growing range of nuclear and ballistic missile capabilities, the world's continuing failure to close off Iran's future pathways to nuclear weaponry, growing nuclear arsenals in South Asia, and erosion of the norm against chemical weapons (CW) use amidst repeated CW atrocities by Syria, as well as Russia's and North Korea's use of nerve agents as a tool of assassination. Threats to U.S. security in both cyberspace and outer space have also notably worsened.

It has become, in other words, in many ways an unprecedentedly challenging international environment. In terms of U.S. policy responses, the story of the last four years is – from the perspective of the State Department's "T" suite – a story of innovation and adaptation to the problems that have confronted this country. The following pages offer an overview of these developments, at least as far as can be recounted at the unclassified level and without entirely exhausting the reader with detail, in order to better inform policymaking by our successors.

I. Supporting U.S. Competitive Strategy

During the last four years, we have placed special emphasis upon supporting the United States' shift of policy priorities toward meeting the threats presented by state-level adversaries and competitors. As described in the [2017 National Security Strategy](#) (NSS),

"China and Russia challenge American power, influence, and interests, attempting to erode American security and prosperity. They are determined to make economies less free and less fair, to grow their militaries, and to control information and data to repress their societies and expand their influence. At the same time, the Democratic People's Republic of Korea and the Islamic Republic of Iran are determined to destabilize regions, threaten Americans and our allies, and brutalize their own people. ... These competitions require the United States to rethink the policies of the past two decades – policies based on the assumption that engagement with rivals and their inclusion in international institutions and global commerce would turn them into benign actors and trustworthy partners. For the most part, this premise turned out to be false. ... The competitions and rivalries facing the United States are not passing trends or momentary problems. They are intertwined, long-term challenges that demand our sustained national attention and commitment."

Building upon this foundation, the T family of bureaus revised its overall approach and, without selling short our traditional priorities, reoriented attention and effort to ensure that we meet these state-level challenges within our areas of responsibility. Our work supports and builds upon the NSS, National Defense Strategy, Nuclear Posture Review, the [Indo-Pacific Strategy](#), the [National Cyber Strategy](#), the National Space Policy, and the State Department's own, newly developed China Lines of Effort – to which we ourselves have added a new T-family support-to-competitive-strategy plan, as well as various bureau-specific initiatives (such as with ISN reorienting much of its programming to meet state-level challenges, and creating a new Office of Competitive Strategies). Our Defense Sector Plans Team in PM's Office of Security Assistance, moreover, engages with DoD to ensure the National Defense Strategy and other planning and posture efforts consider State Department equities and address political, diplomatic, and economic concerns.

A. Arms Control

In the arms control arena, the last four years have been eventful, marked first and foremost by our determination to take compliance with arms control agreements and commitments more seriously than

before. By the time the current administration took office in early 2017, after all, it had been almost four fruitless years since the United States first approached Moscow about its noncompliance with the Intermediate Range Nuclear Forces (INF) Treaty. At the same time, the Russians had essentially *never* had a fully compliant record with respect to the Treaty on Open Skies (OST) at any point since it entered into force in 2002. Nevertheless, up through the end of 2016, *years* of U.S. diplomatic finger-wagging had produced no change in Russian behavior with regard to its INF obligations, even as the Kremlin proceeded to complete development and [begin production of its illegal INF-class cruise missile](#), while also continuing to fall short of full compliance with its Open Skies obligations.

In 2017, however, the United States adopted new approaches in response to both of these violations, stepping up our diplomacy to enlist allies and partners in holding Russia accountable, implementing unilateral steps to put more pressure on Moscow and thereby finally give it concrete *reasons* to change course, and clearly signaling that U.S. patience with chronic, unaddressed Russian violations would *not* continue indefinitely. On Open Skies, we implemented a number of countermeasures in response to Russia's continuing violations, as well as several steps to implement our own treaty obligations less leniently (while of course remaining compliant).

With regard to the INF Treaty, the U.S. interagency agreed to start exploring what sort(s) of new missile we might wish to have in the event that the Kremlin chose not to remedy its violation and the INF Treaty collapsed. No U.S. move that would amount to a violation of the INF Treaty was authorized, of course, but we signaled quite clearly that if the Russians had concluded from years of prior U.S. inaction that they could continue to enjoy a situation in which the United States *alone* continued to comply fully with the Treaty, *that* option would now be off the table. From late 2018, therefore, we made clear that there were only two options: Russia could join us in complying with the INF Treaty, or the Treaty would end.

Unfortunately, of course, Russia opted *not* to change course – thus choosing to destroy the INF Treaty rather

than stop deploying multiple battalions of its illegal intermediate-range ground-launched cruise missiles.² Russia also opted to do nothing to prevent the United States' withdrawal from Open Skies, rather than change its policies of chronic violation, its use of OST implementation in an effort to advance its own narratives purporting to justify military coercion and invasion of its neighbors, and its possible use of Open Skies Treaty flights to collect imagery for purposes of targeting civilian critical infrastructure. All this we deeply regret, of course, for it had indeed been our hope to persuade the Kremlin to change course on both treaties. But our withdrawals from both instruments were the direct result of Russia's irresponsible choices.

Unsurprisingly, Russia has tried to recast these unfortunate developments into part of its disinformation narrative that the United States is somehow “against arms control,” but of course that is errant nonsense. In fact, the forceful U.S. approach to arms control compliance – specifically, our *refusal to accept* endemic violation of important agreements – has finally demonstrated a U.S. policy that takes arms control *seriously*. No one who is willing to accept a situation in which the other side chronically violates an arms control agreement can be said to be serious about arms control. Arms control policy must be about security, as well as about fidelity to the rule of law, and not about shallow, performative virtue-signaling at the cost of turning a blind eye to destabilizing illegality. Precisely because we *are* serious about arms control, and about the security benefits that it can bring *if* its rules are honored, we have therefore been determined to make sure that arms control obligations are not ignored, and that chronic violations are not tolerated. And so Russia's scofflaw self-aggrandizement destroyed one important and valued international agreement, and gravely damaged another.

Despite all this, however, our commitment to serious arms control remains undimmed. It is precisely that commitment to arms control integrity, moreover, that has underlain the United States' [call for new arms control with Russia, and with the PRC](#). Such a new arms control framework is badly needed for at least two reasons. First, it is necessary in order to prevent a dangerous new spiral in the nuclear arms race as a result of those countries'

² This author was the [first U.S. official publicly to identify the actual Russian designator for this illegal missile, the 9M729](#), which NATO terms the SSC-8 SCREWDRIVER. Moscow subsequently acknowledged the existence of such a system, and – tellingly – has [included it in the Kremlin's disingenuous INF-class “moratorium” proposal](#).

nuclear buildups – both in terms of overall numbers and diversity of systems (China) and in terms of developing new novel strategic weapons and maintaining a substantial arsenal of non-strategic weaponry (Russia). Such a new framework is also important, however, in order to help fulfill the obligation all three powers have, under Article VI of the Nuclear Non-Proliferation Treaty (NPT), to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament.

In April 2020, the President appointed a Special Presidential Envoy for Arms Control (SPEAC) to take over U.S. efforts to bring the PRC and Russia into a new arms control framework. To support this work, the State Department set up a negotiating team under SPEAC's *aegis*, supported by the arms control negotiating and verification expertise that has long resided within the AVC Bureau. This team has been closely engaged on these matters ever since.

Unfortunately, how seriously Beijing takes preventing a new spiral in the arms race and living up to Article VI has become all too obvious: it doesn't. The PRC remains not just *opposed* to any arms control negotiations with the United States and Russia that would involve limiting its nuclear forces, but in fact positively *contemptuous* of the idea – even as it engages in what will be at least a doubling of its nuclear forces over the next decade. This Chinese buildup is especially worrying on account of its high degree of secrecy and its objective needlessness, given that American and Russian arsenals have been cut by *at least two-thirds* since China joined the NPT in 1992. For a country purporting to have a “no first use” and “minimum deterrence” posture, one might have imagined that these massive U.S. and Russian nuclear reductions would allow China to cap or reduce its own arsenal. Despite this huge reduction in the nuclear threats Beijing claims to fear, however, the PRC, assessed to be the world's third largest nuclear weapons power, [continues its nuclear buildup](#) toward some form of nuclear weapons parity with the United States, while rejecting growing international demands to engage in nuclear arms control dialogue with the United States.

Russian responsiveness to U.S. efforts to build a new arms control framework has been better than the PRC's,

but even there, critical issues still remain unresolved. At the time of writing, this effort remains a work in progress, as we have sought agreement between the United States and Russia to cap the total number of U.S. and Russian nuclear warheads in exchange for a one-year extension of New START (which the United States has continued faithfully to implement) with the intent to use that time to develop the basis for a successor treaty to New START. Despite President Putin's announcement accepting the cap, the Russians are not yet where they need to be,³ as the United States continues to press Russia to define precisely what is being capped, at what level, and to seek agreement on meaningful verification of this historic understanding. Thus do we continue to seek effective and verifiable arms control agreements [that meet U.S. and allied security concerns](#) and serve the interests of international peace and security.

B. Detering Aggression

As called for in the [2018 Nuclear Posture Review](#), moreover, it is not merely that we continue to pursue “arms control efforts that advance U.S., allied, and partner security[,] are verifiable and enforceable[,] and include partners that comply responsibly with their obligations.” It is also that we remain determined to preserve the U.S. capacity to deter aggression – including through the “nuclear umbrella” of “extended” nuclear deterrence that we offer to our military allies, and which still [represents the world's most successful nonproliferation tool](#).

During the last four years, the United States has continued full speed with a much-needed modernization of U.S. nuclear delivery systems in order to prevent their block obsolescence, and we have begun both to [recapitalize the U.S. nuclear weapons infrastructure](#) and to modernize the U.S. Nuclear Command, Control, and Communications (NC3) system for the first time since the early 1980s. Without increasing the overall size of our nuclear stockpile, moreover, we have taken modest but innovative new steps to augment U.S. capabilities where needed in order to respond to Russian and PRC threats, such as by deploying a [new lower-yield nuclear warhead](#) for certain submarine-launched ballistic missiles and by beginning to develop a [modernized replacement for the sea-launched cruise missile capability](#) that was scrapped by the Obama Administration a decade ago. No longer

³ We certainly hope that Vice President Biden's public [promise to the Russians that he would extent New START without conditions](#) has not destroyed U.S. negotiating leverage for achieving a breakthrough on an unprecedented overall warhead cap.

bound by the INF Treaty as a result of Russia's violations and the consequent U.S. withdrawal, the United States is also pursuing variants of conventionally armed intermediate-range ground-launched missiles for the Army and the Marine Corps, for potential deployment in response to the already well-established intermediate-range capabilities of both China and Russia.

As the diplomatic arm of the overall U.S. effort to deter aggression against the United States and its allies, the T family has been at the forefront of international dialogues fostering better cooperation to this critical end. The AVC Bureau, in particular, has played a key role in U.S. diplomacy in these regards, leading State's participation in multiple dialogues on issues related to extended deterrence and assurance with foreign partners in both Europe and the Far East.

C. Strengthening Security Partnerships

The PM Bureau has also been doing outstanding work during the last four years in strengthening America's security partnerships through arms transfers and capacity-building engagement. This work increases the capacity and resilience of U.S. partners and allies in advancing U.S. and shared security objectives, not simply in order to support and empower the U.S. Defense Industrial Base (DIB) through exports, but primarily to use such programs more broadly as a tool to improve security outcomes on the ground in bolstering friends and partners against the threats posed by regional revisionists such as Iran, and by the global revisionists in Beijing and Moscow. These efforts expand the range of partners with whom U.S. forces are able to work in deterring aggression, as well as the interoperability necessary to confront such aggression should it occur.

Since 2017, we have notified the U.S. Congress of arms sales in excess of \$272 billion dollars, including high-end systems such as the THAAD air-defense system for Saudi Arabia, the stealthy F-35 combat aircraft and Patriot missiles for Poland, the F-35 for Japan, F-16 fighters for Bulgaria and Greece, Javelin anti-tank missiles for Ukraine and Georgia, advanced anti-air missiles for Hungary, and a growing range of tailored, asymmetric capabilities designed to make the island of Taiwan "indigestible" in the face of a PRC invasion. Defense trade is also becoming an increasingly important component of the United States' strategic partnership with India, with more than \$20 billion in sales having been authorized since 2008.

Most recently, a potent package of proposed sales of new capabilities – including F-35 and unmanned aerial vehicles (UAVs) – has also been announced for the United Arab Emirates (UAE) in the wake of the historic Abraham Accords normalizing relations between that kingdom and the State of Israel.

The PM Bureau provided a "plus-up" of \$290 million in Foreign Military Financing (FMF) to support partners' maritime domain awareness, humanitarian assistance activities, disaster response, and peacekeeping capabilities in the Indo-Pacific, and has reinstated security assistance to Thailand – including International Military Education and Training (IMET) engagement and FMF to support Intelligence, Surveillance, and Reconnaissance (ISR) upgrades for key maritime patrol and search and rescue aircraft. Additional FMF funding is being provided to select maritime police units responsible for national territorial defense in the Solomon Islands, Kiribati, and Tuvalu to support maritime security-focused technical training with the U.S. Coast Guard.

PM has also been deepening security cooperation with U.S. allies and partners around the world through new defense and burden-sharing agreements – such as new Defense Cooperation Agreements (DCAs) with the UAE and Hungary, and the recent Enhanced DCA (EDCA) with Poland, which establish bilateral frameworks for burden-sharing on mutual security interests and enhance and modernize capabilities in support of shared defense goals. (New or modified defense-related agreements of various sorts have also been concluded with Saudi Arabia, Singapore, Greece, Luxembourg, Oman, the Bahamas, Ghana, Curacao, and Honduras, among others.) The year 2020 also saw PM's successful facilitation of a Basic Exchange and Cooperation Agreement with India, which will enable the provision and exchange of geospatial information, following the recent signing of an Industrial Security Agreement with India to facilitate information-sharing between our defense industries, and a Communications Compatibility and Security Agreement related to communications equipment to facilitate secure information sharing.

The PM Bureau has also led U.S. efforts, as directed by the President, to secure more equitable terms in burden-sharing agreements with major U.S. allies. In 2019, this work resulted in the United States and the Republic of Korea signing their 10th Special Measures Agreement, which helps defray costs associated with stationing U.S.

forces in Korea. At the time of writing, negotiations on a follow-on agreement with South Korea are still in progress, and PM has just begun formal negotiations with Japan on a new Host Nation Support Agreement.

U.S. security sector assistance for our friends and partners has also expanded considerably, nearly tripling since 2001 to a current annual total of about \$18 billion. The PM Bureau develops and manages security assistance policy and nearly \$7 billion of this funding. Through this assistance, State works to enable our partners to counter great power competition and deter aggression, restore international peace and security in the wake of conflict or disaster, reduce the illicit proliferation of arms, secure borders against illegal trafficking and transit, and ensure that security forces operate in accordance with international human rights laws and norms. Our security assistance also ensures that our partners and allies have the defense capabilities they need to operate with U.S. forces and to assume an increasing share of the burden of regional and global security. The State Department has worked closely with the Department of Defense to institutionalize new planning mechanisms for coordinating and deconflicting State-managed and Defense-managed assistance to advance top national security priorities, achieve the best outcomes for U.S. national security and the American taxpayer, and provide partners key capabilities aligned with the national-level strategies.

Finally, PM continues to engage with DoD to provide foreign policy input to U.S. war plans and global campaign plans in order to address diplomatic equities, validate planning assumptions, and improve strategies to build and maintain multinational coalitions. Regionally, and below the threshold of armed conflict, PM also helps coordinate U.S. force deployments and posture changes, apprise diplomats of military operations, and assess changes to policy, doctrine, and operating concepts.

D. Technology and Security

Since early 2018, the ISN Bureau has been reorienting itself pursuant to the priorities of the U.S. National Security Strategy in order to support American success in the great power competition into which we have been thrust by PRC and Russian strategy and geopolitical revisionism. Fundamental to our shift has been the effort to take the skills and experience developed in years of nonproliferation work to keep dangerous tools out of the

hands of rogue regimes and terrorists – e.g., through implementing nonproliferation sanctions, developing improved technology transfer and national security export controls, and undertaking worldwide capacity-building programming to help U.S. partners develop and implement “best practices” in export control and border security – and apply them also in ways that serve U.S. national security interests in the arena of great power competition. As noted above, ISN has also realigned its structure in order better to support such work, including through the establishment of a new Office of Competitive Strategies.

Central to these ISN efforts has been our pioneering work in leading the U.S. focus on countering the threats presented by the PRC’s “[Military-Civil Fusion](#)” (MCF) strategy of blurring (and ultimately erasing) distinctions between China’s military and civilian industrial sectors, which has been coupled with an aggressive program of [targeting foreign technology areas](#) for (both legal and illegal) acquisition and diversion to the People’s Liberation Army in furtherance of the [global ambitions of the Chinese Communist Party](#) (CCP). It was, for instance, ISN that first [began to sound the alarm about MCF](#) and its implications for traditional U.S. national security export controls, that drove the [U.S. Government’s pathbreaking revision of civil-nuclear export control policy in October 2018](#), and that first nominated the Chinese technology giant Huawei for the Commerce Department’s “[Entity List](#)” in 2019.

The ISN Bureau has been instrumental on many fronts in this struggle: in conducting [MCF-related threat awareness diplomacy around the world](#); in building “[coalitions of caution](#)” against PRC-related technology transfer threats; in mobilizing resistance to the [depredations, technology theft, and strategic manipulations](#) associated with the state-sponsored PRC and Russian “national champion” nuclear technology sectors; in drawing attention to the security threats associated with [PRC colonization of 5G telecommunications markets](#) worldwide; and in working with our interagency partners to develop [tougher semiconductor export control rules](#), new export control approaches to [emerging and foundational technologies](#), and [MCF-related visa screening procedures](#).

Additionally, ISN has overseen a shift of capacity-building programming into efforts that support competitive strategy vis-à-vis problem states. This has been of considerable value not merely in helping others

better enforce sanctions against proliferator state threats such as Iran and North Korea, but also in improving our partners' ability more diligently to guard against transfers that could support advanced conventional arms and WMD developments in the PRC and the Russian Federation.

E. Countering State Chemical and Biological Weapons

The last four years have unfortunately also been eventful ones when it comes to the resurgence of threats presented by chemical and biological weapons (CBW) programs in the hands of state actors. CBW threats from non-state actors and rogue regimes such as North Korea and Iran remain very real, but it is also important to flag here the resurgence of illegal CBW programs as a grave national security threat specifically in the context of great power competition – that is, the fact that potentially hugely disruptive (not to mention barbaric) weapons threaten us in the hands of geopolitically revisionist leaders who are backed by high-level state resources and cutting-edge science.

Historically, the United States has expressed concern for many years about the possible continued existence of illegal chemical weapons programs in both Russia and China, though for a long time, we generally framed the issue only in terms of unresolved past conduct and certain Chemical Weapons Convention (CWC) violations, such as in the State Department's [2005 Report on Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments](#) (a.k.a. the "2005 Compliance Report") – which observed that Russia was in violation of that Convention "because its CWC declaration was incomplete with respect to declaration of production and development facilities, and declaration of chemical agent and weapons stockpiles." Similarly, in the same 2005 Compliance Report, we then assessed that the PRC "maintain[ed] a CW production mobilization capability" and was in violation of the CWC for "not acknowledg[ing] past transfers of chemical weapons" and perhaps making incomplete declarations of "its CW-related facilities." The United States did not present Russian and Chinese activities in terms of the threat that they could pose to U.S. national security and the security of our allies.

Yet even as the Putin regime has trumpeted its completed destruction of Cold War-era chemical weapons declared to the Organization for the Prohibition of

Chemical Weapons (OPCW), however, Russia's own actions have now lifted the veil on Moscow's continued possession of an illegal CW capability based around the so-called *novichok* ("newcomer") families of "fourth generation" nerve agents secretly (and uniquely) developed by the Soviet Union in the later years of the Cold War. Russia used one such *novichok* agent, for instance, in attempting to assassinate expatriate defector Sergei Skripal and his daughter in the United Kingdom in 2018 – an episode that revealed the existence of Russia's *novichoks* and publicly resurfaced new-generation chemical weapons threats in the context of great power competition. Russia has also been widely condemned for using a chemical weapon in an attempt to assassinate opposition leader Alexei Navalny in 2020 – an act which multiple international laboratories and the [OPCW](#) have confirmed involved another *novichok* agent. For our part, the United States has made clear that we believe officers from Russia's Federal Security Service (FSB) used a nerve agent to poison Mr. Navalny.

This administration has been in the forefront of pushing back against these horrific and illegal acts, including by implementing sanctions against Russia for the Skripal attack pursuant to the Chemical and Biological Control and Warfare Elimination Act (a.k.a. "CBW Act") of 1991. We have also worked with a diverse array of international partners to condemn Russia's behavior, and successfully added two families of *novichok* nerve agents to the CWC's schedules of chemicals, subjecting them to the CWC's routine declaration and verifications requirements. We also added two dozen precursor chemicals to the common control list of the 42-country Australia Group export control regime. (Responses to the Navalny attack are still evolving, but already the [European Union has imposed sanctions](#) against a number of Russian officials.)

It was Russia's own unlawful *novichok* use in the Skripal case that made clear to the world that the threat presented by great power CW programs remains a terrible one, resurfacing CBW in the context of today's security environment of great power competition. The issue of illegal great power *biological weapons* (BW) programs in the hands of geopolitically revisionist authoritarian leaders determined to undermine U.S. security interests, however, has also resurfaced, thanks to the current U.S. administration's efforts to draw attention to this closely related threat.

The same issue of framing has been at play for many years with regard to great power BW threats. The [2005 Compliance Report](#), for instance, noted merely that the PRC “maintains some elements of an offensive BW capability in violation of its BWC obligations” and that “Russia continues to maintain an offensive BW program.” As signaled in the [2020 Compliance Report](#), however, such historical analyses largely revolved around those countries’ dishonesty and opacity about the existence of Cold War-era biological weapons programs, and what elements of such programs may have survived into the modern era. It has been much more difficult to discuss the possibility of BW programs based upon 21st-century technology.

This administration, however, has finally begun to articulate clearly the threat of potentially terrifying biological weapons capabilities, not only those that the Soviet Union originally developed, but also those based upon the insights and methods of modern biotechnology. As I [pointed out in 2019](#),

“biological weapons in the hands of foreign governments are also a very real threat [T]he Russians show no sign of ever having gotten rid of their biological weapons program. Indeed, far from demonstrating its elimination of this program as required by the Biological and Toxin Weapons Convention (BTWC), Russia has refused to properly declare the termination of the program under the BTWC – and [after Russian President Boris Yeltsin admitted the existence of a BW program,] Yeltsin’s successor, Vladimir Putin, has gone back to denying that Moscow’s biological weapons program ever existed in the first place. U.S. officials have raised BTWC compliance concerns with Russia for years, but the Russians have merely stonewalled. One shudders to think what such people could do when equipped with modern gene-editing technology and other tools of the modern biotechnology revolution.”

With regard to what *form* such modern BW work might take, I also pointed out that the threat may be “no longer just about terrorism or the sort of potential large-scale battlefield use challenge that planners worried about during the Cold War,” but potentially also about

“the emergence of a model of ... use more redolent of the ‘sniper’ than of ‘artillery’ ... [and] doesn’t feel any need to confine itself to wartime, either. ... It is not hard to imagine this evolving into a future trend of adversary states seeking out highly specialized, hard-to-detect, and hard-to-treat agents in an effort to maintain a degree of ‘plausible deniability.’”

In a hitherto little-noticed step earlier this year, moreover, we finally moved from a discussion focused on Russia’s treaty compliance to action. On August 27, 2020, the U.S. Department of Commerce added to its “[Entity List](#)” of persons and organizations found to be engaged in “activities contrary to U.S. national security and/or foreign policy interests” three Russian military institutes in Kirov, Sergiev Posad, and Yekaterinburg with longstanding associations [with the Russian biological weapons program](#). This was the first time the U.S. Government has publicly taken direct action against Russia’s continuing, illegal biological weapons program.

The United States has now finally begun to put the attention where it deserves to be: on the extraordinary threats presented in the context of great power competition by illegal biological weapons and the fact that this is not merely a hypothetical but instead a *very real* problem. Now that we have begun to reveal these sinister facts, our successors in the next administration must not take their eyes off the ball when it comes to calling out and mounting effective responses to these emergent great power CBW threats.

F. Countering Malign Influence

On one level, *all* of our T family activities in supporting U.S. competitive strategy relate in some fashion to countering the malign influence of our geopolitical competitors, for the very revisionism in their strategies that we seek to counter is itself fundamentally malign: hostile to democratic governance and the rule of law, and inimical to the preservation of the free and open international order upon which peace and security have so long depended. It is also the case that many of the approaches we have taken, as described hereinafter, to support the dynamism and advancement of critical U.S. economic and technology sectors – including our negotiation of agreements on technology cooperation with, and our provision of advanced military capabilities to, key partners – are also intended to counter malign

influence and strategic manipulation by PRC and Russian energy companies and arms manufacturers.

Even beyond these measures, however, the T family has been taking important new steps to impede the development of dangerous relationships abroad by our authoritarian competitors. One prominent area of counter-threat diplomacy pioneered by the ISN Bureau, for instance, is our use of Section 231 of the Countering America's Adversaries Through Sanctions Act of 2017 (CAATSA), which requires mandatory sanctions on anyone determined to have engaged in a "significant transaction" with specified entities associated with the Russian government's defense or intelligence services.

Using the threat of Section 231 sanctions – and indeed their actual implementation against the PRC for acquiring Su-35 fighter aircraft and S-400 surface-to-air missile systems from Russia, and against Turkey for acquiring S-400s – we have been successful in shutting down or deterring many billions of dollars worth of Russian agreements with various countries around the world, through which the Kremlin would otherwise have been able to make money for its military and build relationships that it could thereafter manipulate for strategic gain. Most of these achievements cannot be publicized, but [as I told the U.S. Senate in 2018](#),

"... [even] though we can't speak about them publicly, we *have* had real successes – in the form of something on the order of billions of dollars in announced or expected Russian arms transactions that have quietly been abandoned as a result of our diplomatic outreach about Section 231. That's billions that Putin's war machine *will not* get, and through which the Kremlin's malign influence *will not* spread, and a slew of strategic relationships between the Kremlin and overseas partners that will not broaden and deepen. We're proud of this record, and we're working hard to run up the score further."

The PM Bureau has also been active in countering malign Russian influence through working with the U.S. European Command to develop and implement the European Recapitalization Initiative Program (ERIP) to help partner countries divest themselves of legacy Russian military equipment and improve interoperability with U.S. and NATO forces. To date, PM has allocated over \$276 million in FMF funding for this work. Separately, PM

provided a significant addition of \$20 million in FMF to help Uzbekistan diversify its inventory of military platforms. PM has also prioritized the allocation of regional FMF in Europe to address asymmetrical threats associated with hybrid warfare, to include more than \$100 million since 2018 specifically to develop partner armed forces' defensive cyberspace security capabilities.

G. Competition Tempered with Cooperativeness

Yet no one should mistake the U.S. Government's new approach to great power competition for an unreflectively hostile one. To the contrary, mindful that the contemporary geopolitical context requires a strategy that [mixes elements of competition with elements of cooperation](#), the T family approach has sought to find a wise "[middle way](#)" which is unstintingly "competitive" where our adversaries force us to be, but yet constructively "cooperative" where we can nonetheless still advance shared interests by engaging even with those who generally wish us ill. As an example, in our approaches to technology controls, we have responded resolutely to the challenges presented by the PRC's "Military-Civil Fusion" strategy, but we have [prioritized focusing upon "chokepoint" technologies](#) where we can most retard the diversion of Western knowledge to support Beijing's destabilizing military buildup while minimizing disruption to the world-leading U.S. technology sector.

We also continue to prize dialogue and engagement, even with competitors whose global strategies threaten Americans' security and well-being. We have, for instance, conducted multiple Strategic Security Dialogues (SSDs) with Russian counterparts, and – as described below – have also held important Space Security Exchanges (SSEs) with both Russia and the PRC. (Unfortunately, our efforts to hold an SSD with Beijing have been rebuffed: as in other arenas, the Chinese Communist Party seems to have little but contempt for bilateral risk-reduction diplomacy.) It is not merely that such continued direct diplomatic engagement is important *despite* the fraught nature of our broader relationships with Russia and the PRC. In an era of great power competition in which the contenders possess weaponry potentially capable of killing millions and devastating the globe, continued engagement on how to mitigate risks is vital precisely *because* of those broader challenges.

II. Meeting Proliferation Threats

Despite our new focus upon great power competition, however, the T family of bureaus has not slacked off in continuing our longstanding work to counter proliferation threats.

A. Chemical, Biological, and Radiological Threats

The last four years have been alarming ones from the perspective of chemical weapons proliferation, for the global norm against the use of such weapons has been under threat by continuing chemical weapons atrocities in Syria and the use of CW in assassinations and attempted assassinations by both North Korea and Russia.

Syria's much-publicized, Russian-brokered accession to the CWC and destruction of its declared arsenal of chemical weapons in 2013-14, of course, turned out to be a tragic fraud, for the Assad regime clearly retained chemical weapons that it has continued to use against the Syrian people to devastating effect. In response to the Syrian government's use of CW against its own civilians, however, the United States has taken firm action, and has imposed sweeping sanctions against those responsible and conducted military strikes in 2017 and 2018 against Syrian facilities involved with two of these massacres.

The AVC Bureau has led international diplomatic efforts against Syria at the United Nations and at the OPCW, supporting the outstanding work of the OPCW-United Nations' Joint Investigative Mechanism (JIM) and then – after Russia irresponsibly vetoed the continued existence of that mechanism – leading the efforts that culminated in the historic June 2018 decision that provided for the establishment and helping protect the work of the OPCW's new Investigation and Identification Team (IIT), which has done important work in attributing chemical weapons use in Syria (including, in its first report released in April of this year, attributing attacks to the Syrian government). In July 2020, the OPCW Executive Council adopted a decision proposed by the United States and co-sponsored by 40 countries, including States Party from all regional groups, to address the IIT's findings and which set out certain measures that the Syrian government needed to take to redress the situation. The EC decision recommended that, if Syria did not fully complete these measures within 90 days (by October 7), the CSP adopt a decision taking appropriate action

pursuant to Article XII, paragraph 2 of the CWC. In October, the Director-General issued his report confirming that the Syrian Arab Republic had not completed any of the measures set out in the July EC decision. At the time of writing, a draft decision drafted by the United States and like-minded countries is with the Conference of the States Parties for its consideration. The draft decision would suspend Syria's rights and privileges under the Convention – namely its ability to vote, to stand for election to the EC, and to hold any office of the CSP, the EC, or any subsidiary organ of the OPCW – until it fulfills the measures laid out in the July EC decision.

Unfortunately, CW problems have also arisen elsewhere in the Middle East, and in East Asia as well. In 2017, the DPRK regime used VX nerve agent to assassinate Kim Jong-Nam, half-brother of the North Korean dictator, in Kuala Lumpur. In response to this, the United States imposed sanctions on the DPRK under the CBW Act – the implementation of which is led by the ISN Bureau. This brazen act also landed the Kim regime back on the U.S. State Sponsors of Terrorism List. In addition to finding Burma in violation of the CWC for failing to declare its past CW program and destroy its CW production facility, the AVC Bureau has led the way in calling attention to [Iran's non-compliance with its CWC obligations](#), announcing this finding at the CWC's Fourth Review Conference in 2018.

Over the last three years, the ISN Bureau has taken important steps to [reorganize and reform its nonproliferation programming](#) through an extensive, “bottom-up” review – aiming to make that programming more threat-prioritized and threat-responsive, to improve performance metrics and develop “graduation” criteria for partners who have been successfully brought up to international “best practice” standards, and to deepen coordination and find more synergies between ISN's “programming” and “policy” offices. Rather than engaging with partners simply for its own sake, we are thus optimizing our nonproliferation programming in order to be able to reassure the American taxpayer that every dollar spent is optimally aligned against clear and prioritized national security threats.

B. Nuclear Threats

From the perspective of nuclear proliferation threats, the last four years have been marked by two overarching, slow-motion crises: the ongoing development of nuclear weapons and ballistic missile capabilities by the DPRK;

and the challenges presented by Iran's nuclear capabilities. The T family has been centrally involved in both respects.

(1) North Korea

To be sure, the T family was not the locus for the principal diplomatic developments related to North Korea in recent years, but it has played a critical role in support of U.S. national security and foreign policy priorities. To begin with, through its diplomatic engagement, implementation of counterproliferation sanctions, and capacity-building programming in support of United Nations sanctions implementation, ISN has played a critical role in the State Department's "pressure campaign" side of U.S. North Korea policy. This work, including ISN's ongoing efforts to keep foreign partners in the business of resolutely implementing U.N. sanctions despite significant (and worsening) backtracking by the PRC and Russia, has been crucial in giving the regime in Pyongyang an incentive to come to the bargaining table. We have also built these efforts into an extensive campaign to engage private sector industries, such as the maritime sector, which are at the forefront of counterproliferation sanctions compliance and enforcement. To proliferate WMD and arms-related items, proliferators need access to the global industrial, shipping, and logistics industries to move their wares to programs of concern. Yet thanks to T family efforts, it is now much harder for North Korea, Iran, and others to do so. In support of broader U.S. efforts against rogue regime proliferation, AVC's delegation to the Conference on Disarmament in Geneva also organized in 2017 a joint presentation with the delegations of South Korea and Japan to highlight the critical security threats posed by North Korea's nuclear and missile programs.

On top of this enduring role against DPRK proliferation threats, moreover, President Trump's direct diplomatic engagement with Chairman Kim Jong-Un provided an opportunity for the United States to pursue the final and fully verified denuclearization of the DPRK (a.k.a. "FFVD"). In furtherance of that objective, the T family (and ISN in particular) stepped in to provide the expertise and manpower that formed the technical core of Secretary Pompeo's DPRK Working Group supporting this pathbreaking diplomatic effort. T family expertise was thus instrumental in developing U.S. FFVD denuclearization proposals and plans, verification methods, and implementation methodologies, in

coordination with our interagency partners from the National Nuclear Security Administration (NNSA), the Department of Defense, the National Security Council, and other agencies. ISN's Nonproliferation and Disarmament Fund (NDF) also set aside "seed money" to cover the cost of U.S. contributions to implementing and verifying a negotiated FFVD solution until broader sources of interagency funding would have become available.

It is unfortunately clear that North Korea has *not* yet made the decision to implement the denuclearization commitments Kim Jong Un made to President Trump at the historic 2018 Singapore Summit. Nonetheless, the T family's preparations for FFVD success when Pyongyang chooses to change course will undoubtedly pay dividends in the future; pioneered and coordinated by what is now ISN's standing, institutionalized "negotiated threat elimination" (NTE) capability (see below), the U.S. interagency stands ready to implement denuclearization as soon as Pyongyang can be induced to honor its promises.

(2) Iran

Perhaps the most contentious of nonproliferation issues during the last four years has been the United States' effort to bring about an agreement under which Iran would finally accept permanent limits on its nuclear capacities – thus rectifying the gaping hole left in the international community's approach to Iranian proliferation threats by the Joint Comprehensive Plan of Action (JCPOA) of 2015, which by its terms would eventually allow Iran to build up a huge fissile material production infrastructure and to accumulate a massive stockpile of enriched uranium, thus positioning itself for the possibility of a rapid future "breakout" to nuclear weapons. Throughout the development and implementation of U.S. policy on this crucial issue, the T family – and ISN in particular – has been the central locus of U.S. Government nonproliferation wisdom, and since September 2018 has been the fountainhead of technical expertise and nonproliferation-related policy support to the Special Representative for Iran and to Secretary Pompeo's Iran Action Group (IAG).

ISN had already been the lead State Department player on Iran-related nonproliferation sanctions and related counterproliferation efforts for many years. As the Trump Administration sought in late 2017 and early 2018 to fill the dangerous gaps left by the JCPOA, however, ISN

assumed an even more important role in U.S. nonproliferation diplomacy. Pursuant to the President's [direction in October 2017](#) to fix the infamous "sunset" provisions of the JCPOA that would in time relax key constraints upon the size and scope of Iran's nuclear program, ISN co-led U.S. diplomatic engagement in early 2018 with the so-called "E3" states (the United Kingdom, France, and Germany) in an effort to find common ground on how to keep Iran from positioning itself for an easy option of future nuclear weapons "breakout."

These diplomatic efforts made considerable progress, but ultimately foundered on the E3's unwillingness to countenance any effort to pressure Iran to accept enduring limits on its nuclear program. (The Europeans would not even accept pressuring Iran to make permanent the then-current JCPOA limits on Tehran's capabilities.) As a result of the E3's rejection of U.S. overtures, the United States exited the JCPOA in May 2018, after which ISN stepped in as the lead contributor of nonproliferation-related technical expertise and analysis to Secretary Pompeo's two-track effort to: (a) achieve a negotiated solution to the broad problem of Iranian malign activity; and (b) implement an unprecedented "maximum pressure" sanctions campaign on the Iranian regime in order to give it incentives to engage in such negotiations.

Since that time, ISN has continued to play a critical role in U.S. diplomacy. We have been central, for example, not only in spelling out the logic of the United States' approach to [cutting off Iran's potential pathways](#) to a nuclear weapon and [seeking diplomatic resolution of the Iran proliferation crisis](#) on the basis of [Secretary Pompeo's vision for a negotiated solution](#), but also in ensuring effective implementation of International Atomic Energy Agency (IAEA) safeguards authorities in Iran in the face of the country's failure to resolve continuing IAEA questions about [possible undeclared nuclear material](#) and activity in Iran, which raise serious questions about Iran's compliance with its obligations under its safeguards agreements and the NPT.

C. Missile Threats

In ongoing efforts to combat missile proliferation threats, the ISN Bureau continues to lead the U.S. interagency in engagements with Missile Technology Control Regime (MTCR) partners, in developing counterproliferation approaches to missile transfers of concern, [implementing sanctions against illicit transfers](#)

supporting Iran's missile program, and in supporting the [Working Group on Missile Proliferation](#) that was established as part of the pathbreaking U.S.- and Polish-led [Warsaw Process on the Middle East](#). The AVC Bureau represented and coordinated State Department input during the formulation of the [2019 Missile Defense Review](#). As the State Department's lead for missile defense policy, AVC has continued to manage the Department's participation in an ongoing series of dialogues on missile defense issues that strengthen cooperative efforts with U.S. allies and partners in Europe, Asia, and the Middle East. AVC has also led the Department in developing diplomatic engagement and public diplomacy game plans in support of U.S. missile defense policy and programs and to rebut disinformation as well as threats from Russia and the PRC that attempt to intimidate, coerce, or drive wedges between the U.S. and allies, partners, and friends.

D. Negotiated Threat Elimination

With its agile and responsively "expeditionary" Nonproliferation and Disarmament Fund (NDF) and a deep bench of subject matter expertise throughout the bureau, ISN has long been the State Department's center of excellence in programming to dismantle threat capabilities overseas. Bureau offices, for instance, played critical roles in past efforts at missile dismantlement in the countries of the former Soviet Union in the 1990s, removal of Libya's WMD programs in the 2000s, "disablement" of certain nuclear facilities in North Korea in 2008, and the destruction of the *declared* portions of Syria's chemical weapons arsenal in 2013-14. As noted above, in support of President Trump's North Korea diplomacy with Chairman Kim Jong Un beginning in 2018, ISN reconstituted this capability, identifying specific staff, expertise, and "seed money" that provided Secretary Pompeo an effective toolkit that would enable us to implement and verify any serious North Korean denuclearization effort.

Such efforts, however, had in the past always been *ad hoc* in nature, and were invariably followed by disbandment of the mechanisms created for each elimination project. In 2019-20, therefore, we took this concept a step further as part of our realignment of the ISN Bureau, institutionalizing a *standing* "negotiated threat elimination" (NTE) capability within the Bureau on a permanent basis. Overseen by the Coordinator for Threat Reduction, this NTE function is able to call, on short notice, upon a broad array of bureau, Departmental, and interagency expertise in support of NTE tasks – whether in

connection with the FFVD of North Korea, a possible future deal on missile elimination with Iran, the dismantlement of Burma's legacy CWPFF, or in some other felicitous future scenario. This on-call capability, supported by NDF contingency funding under the "notwithstanding" legal authorities that make that fund such a valuable tool in rapidly evolving contingencies, will be an asset to Departmental diplomacy for years to come.

III. Security in Cyberspace, Outer Space, the Polar Regions, and Emerging Technologies

The national security threats facing the American people in the novel, rapidly-evolving, high-technology domains of cyberspace and outer space – as well as from the ways in which emerging technologies may affect the global environment – are considerable, and they are growing. As a consequence, as the State Department's primary reservoir of talent and experience in the many ways in which modern technologies affect national security, the T family of bureaus have been extraordinarily busy in these areas, building on our predecessors' innovations and developing U.S. policy in important new directions over the last four years.

A. Cyberspace Security: Norms and Deterrence

The team at CCI has been leading the United States' effort – building upon important U.S. diplomatic initiatives going back at least to 2011 – to develop and promote an international framework of responsible State behavior in cyberspace. This framework includes affirming the applicability of international law to States' use of cyber capability and promoting non-binding norms of responsible State behavior during peacetime, including that States should refrain from engaging in malicious cyber activities against critical infrastructure. This work has involved sponsoring a U.N. General Assembly Resolution affirming this framework and establishing a new Group of Governmental Experts (GGEs) to develop such approaches further. In addition, we have worked to promote this framework at the regional level, including by developing and implementing cyberspace-related confidence-building measures (CBMs) at the Organization for American States, the Association of South East Asian Nations (ASEAN) Regional Forum, and the Organization for Security and Cooperation in Europe (OSCE).

Pursuant to the [2018 U.S. National Cyber Strategy](#), however, we have also been [working to add elements of deterrence to America's cyber diplomacy](#) – including by developing a new U.S. government approach to deterring peacetime destructive, disruptive, or otherwise destabilizing malicious cyber activity that offers the U.S. interagency specific options for policies, processes, and capabilities that could be put into practice in our response to significant cyber incidents. In support of cyber deterrence, in fact, CCI has been building an international Cyber Deterrence Initiative (CDI): a coalition of likeminded states that can work together on a voluntary basis to respond to, and to deter, significant cyber incidents.

Thanks to these efforts, in 2019 we persuaded 28 countries to join a "Joint Statement on Advancing Responsible State Behavior in Cyberspace," pledging support for the [existing framework of responsible state behavior in cyberspace](#) and committing to work together to hold accountable states that act contrary to this framework. And indeed, working with likeminded partners, we have had tremendous success in mobilizing diplomatic partners in cooperative response to a range of malicious cyber activities by Russia, China, Iran, and North Korea – including attribution of the WannaCry cyber attack to North Korea, the CloudHopper incident to the PRC, and the 2019 cyber attack on the country of Georgia to the Russian military intelligence service, as well as issuing an unprecedented before-the-fact joint international warning against a potential cyber attack against the Czech Republic in 2020. CCI-managed cyberspace capacity-building programming is also being used to build friendly countries into better cyberspace security partners, such as by assisting them in developing national cyber strategies, strengthening their Computer Security Incident Response Teams (CSIRTs), and building greater understanding of the framework of responsible state behavior in cyberspace. Complementing CCI's efforts, PM provides FMF to fund approximately 70 percent of the U.S. European Command's defensive cyber capacity-building programs across 13 regional partners.

Finally, CCI has represented the State Department in providing foreign policy input and risk assessments to U.S. Cyber Command campaign plans and operations. This is a role about which it is not possible to say more here, but it represents yet another vital way in which T-family components contribute in ongoing ways to U.S. and national security.

B. Outer Space

As the U.S. interagency community implements the new [National Space Policy](#), the T family of bureaus has been a key leader, with the AVC Bureau taking charge of U.S. diplomacy in support of the policy's principles, goals, and national security space guidelines. Working closely with operators from the U.S. Space Command and the newly established Space Force, for instance, we have held Space Security Exchanges (SSEs) with both the PRC and Russia, and we are hard at work developing and negotiating concepts for improved operator-to-operator communication linkages. In the coming years, these efforts will contribute to synchronized national and alliance strategies to prevent space accidents and reduce the risk of unwanted escalation in a crisis. We are also leading the way in pushing back against [disingenuous Russian and Chinese diplomatic games](#) purporting to offer space "arms control," in calling attention to the rapid militarization of the space domain being pursued by Moscow and China ([including Russia's actual placement and testing of counterspace weapons in orbit](#)), and in promoting the development of norms of responsible behavior and affirming the applicability of International Humanitarian Law (IHL) in outer space. On December 7, 2020, 164 UN Member States overwhelmingly supported a U.S. co-sponsored resolution to develop and promote important norms of responsible behavior in outer space. (Russia, the PRC, North Korea, Syria, and Iran voted against it.)

C. Emerging Technologies

On top of all this, as the State Department's center of excellence in technology-related aspects of national security and foreign policy, the T family has been working to ensure U.S. preparedness not only for today's technology-related threats, but also for the threats of tomorrow. The AVC Bureau, for instance, has focused on addressing the security challenges presented by emerging technologies, e.g. Artificial Intelligence, and by coordinating a Department-wide national-security focused Strategy for Artificial Intelligence. AVC has also been using diplomacy to protect the world's critical infrastructure of undersea cables against foreign threats. Finally, AVC led the Department's efforts to establish the National Strategy for Critical and Emerging Technologies (C&ET), which provides direction for a whole-of-government effort to maintain worldwide leadership in C&ET by promoting our National Security Innovation Base (NSIB) and protecting our technological advantage.

For its part, ISN has been providing crucial State Department connectivity to Commerce Department-led efforts to develop new national security export controls for emerging and foundational technologies under the Export Control Reform Act of 2018 (ECRA), while PM and ISN continue to cooperate closely with the Office of the Legal Adviser on issues related to [Lethal Autonomous Weapons Systems](#) (LAWS) – an area of continuing international interest and civil-society concern, and in which the State Department has provided critical intellectual leadership.

D. The Polar Regions

Although, historically, the United States has done more Antarctic Treaty (AT) inspections than any other country, with strong advocacy from AVC, a State Department led delegation completed its first AT inspections in nearly eight years in February 2020. AVC has worked closely with State's OES Bureau, the National Science Foundation, and the NSC to ensure a more regularized process for future inspections, which will strengthen our ability to verify compliance with the Antarctic Treaty, including its arms control provisions. The U.S. delegation included contributions from the Department of State, National Science Foundation, the U.S. Coast Guard and the National Oceanic and Atmospheric Administration in inspecting an Italian research station, a Republic of Korea research station, a special management area, and a PRC research station under construction.

Despite our desire for peaceful cooperation in the Arctic, the Arctic is an emerging region for Great Power competition. The changing Arctic, not least because of diminishing sea ice coverage and increasing access to natural resources and potentially lucrative shipping routes, creates incentives for Russia and the PRC to pursue Arctic agendas that clash with the interest of the United States and likeminded partners and that could put at risk our collective efforts to ensure the Arctic remains a region of low tension. U.S. Arctic policy is based on several principal objectives, including ensuring that the region remains free from conflict and is governed by the rule of law. Securing the Arctic is vital to the defense of the American homeland, the security of U.S. Allies, partners, and indigenous peoples, the preservation of freedom of the seas, and support for scientific research and commerce. T family support to the new U.S. State Department Arctic Coordinator includes increasing U.S. relationships with Arctic Allies and partners in the area to

deter Russian irresponsible military actions and to raise awareness of Chinese coercive economic practices and dual-use civil, commercial, and scientific systems that further Beijing's MCF goals at the expense of Allies and partners.

E. The New CSET Bureau

As I outlined in a recent edition of our ACIS Papers, the State Department has also been working to organize itself in ways that will maximize its effectiveness in dealing with cyberspace security challenges and those associated with emerging technologies such as Artificial Intelligence and machine learning (AIML), quantum information science, nanotechnology, biological sciences, hypersonic systems, outer space, technologies, additive manufacturing, and directed energy. Reporting to the Under Secretary for Arms Control and International Security (a.k.a. "T"), a planned Bureau of Cyberspace Security and Emerging Technologies (CSET) would allow the State Department to be better postured in order to handle these various security challenges.

The Department notified Congress of plans to establish the new CSET bureau in June 2019. Since that time, we have been working to try to address concerns raised by two Members of Congress whose objections have delayed implementation of these critical efforts to reorganize and resource America's cyber diplomacy in the face of growing threats and malign influence from countries such as the PRC, Russia, Iran, and North Korea. On January 7, 2021, the Department announced it would begin the formation of this new bureau.

IV. Promoting U.S. Strength and Prosperity

As we have approached support to U.S. global competitive strategy in the State Department's T family of bureaus, we have attempted not simply to meet foreign threats and undermine the efforts of those who wish us ill, but also to help boost U.S. competitiveness wherever we can. As I explained earlier this year,

"Because competitive power is a relative rather than an absolute value, effective U.S. strategy can approach the competitive race in either or both of two complementary ways, the elements of which are foreshadowed in the strategic guidance offered by the National

Security Strategy. Specifically, we must work to help the United States and its allies 'run faster' in that competition, as it were, and we must also help make those who seek to *compete* with us 'run more slowly.'"

Most of the foregoing pages have dealt with the second of these efforts (i.e., "run more slowly" or "impede progress" efforts), but the next sections will outline some of the ways in which have been working to promote the competitiveness and dynamism of critical sectors of the U.S. economy.

A. Boosting the U.S. Defense Industrial Base

For the last four years, the PM Bureau has worked tirelessly to secure and empower the U.S. Defense Industrial Base (DIB) in ways powerfully supportive of our country's geopolitical competitiveness in an era of contestation and of our economic prosperity. The guiding light for this work has been the [2018 Conventional Arms Transfer](#) (CAT) Policy and its associated Implementation Plan, which are designed to align U.S. Government and industry efforts to deliver the capabilities most critical to achieving U.S. foreign policy and national security objectives.

These innovations have been beneficial in at least two ways. First, they have guided our work to step up sales of U.S.-manufactured or -designed items that help sustain crucial U.S. technology and industrial sectors and support the National Security Innovation Base (NSIB). They are also helping to make our security sector partners around the world *better* partners, both more able to defend themselves and more able to interoperate with the United States in meeting shared threats. Since the beginning of 2017 we have already authorized nearly \$500 billion in worldwide sales under Foreign Military Sales (FMS), and Direct Commercial Sales (DCS) programs.

In 2020, moreover, PM completed an update of the State Department-managed U.S. Munitions List (USML) – which describes defense articles controlled for export – that had been in progress for the better part of a decade, making a final change to that list in order to revise USML Categories I, II, and III. These changes affected firearms exports, the more "commercial" of which were transferred from the USML to the Commerce Control List (CCL) that is maintained by the Department of Commerce. These

adjustments were of benefit to smaller U.S. manufacturers and service providers, who now no longer need to register with the Department of State in many cases, and who no longer require approval from the State Department to provide defense services related to items that migrated to the CCL.

Separately – but also in important steps that make our administration of defense trade controls more efficient, effective, and user-friendly – we have modernized the information technology systems through which these controls are administered, launching a new online platform in February 2020 that has transformed the registration and licensing process into a modern web-based system that enhanced the submission process for defense manufacturers, exporters, and brokers. PM has also continued to modernize and reorganize the USML and the International Traffic in Arms Regulations (ITAR) in order to make this regulatory regime more effective, even while continuing our strong tradition of civil enforcement actions to ensure compliance with these rules – which during the last four years has resulted in five major consent agreements with major industry players and the statutory debarment of 214 persons from participating in defense trade.

B. Promoting Civil-Nuclear Progress and Innovation

Through the ISN Bureau, we have also been working hard to promote and facilitate civil nuclear exports. The U.S. civil nuclear industry – a critical sector – led the world for decades. In recent years, however, it has lost market share to openly predatory, state-subsidized “national champion” competitor companies operating on behalf of the autocratic regimes that rule the subject peoples of China and Russia. In addition to pioneering diplomatic responses and building countervailing coalitions against the tactics of those Chinese and Russian competitors – which function as arms of authoritarian power in creating enduring client dependencies that provide those companies’ political masters with opportunities for long-term strategic manipulation – the ISN Bureau has led the way in [opening paths for the U.S. civil nuclear industry’s resurgence](#).

Some of this work has been undertaken in the arena of negotiating the so-called “123 Agreements” that are required by law before U.S. nuclear reactors and fuel can be exported. In the last four years, we have successfully

concluded and signed new 123 Agreements with both Mexico and the United Kingdom, and we have continued longstanding work to reach such an agreement with Saudi Arabia. In our negotiations, moreover, we have continued to demand fidelity to the highest achievable nonproliferation standards, including acceptance of the IAEA Additional Protocol (AP) by recipient states – a standard we also continue to urge other supplier states to adopt, since it is by now very clear that responsible nuclear supply simply must include ensuring that the recipient has an AP in force. (We have also used our diplomatic skills to undermine and stigmatize private sector efforts to engage in dangerous partnerships with the authoritarian competition, as well as to prevent those competing with American bids from attempting to export U.S.-origin technology under the false guise of “indigenous” foreign developments.) Our diplomacy in these regards is a critical enabler for U.S. competitiveness in this vital sector.

Not content simply to boost U.S. reactor sales, however, we have also led the way in developing and negotiating new mechanisms for the promotion of broader and deeper relationships between laboratories, regulators, scientists, researchers, and industry stakeholders in the United States and their counterparts in various foreign partner countries, in ways that will help us grow together into stronger nuclear energy-related partners. These new Nuclear Cooperation Memoranda of Understanding (NCMOUs), which ISN [first announced in early 2019](#), and four of which have already been signed, are proving to be a great success in advancing global partnerships and cooperation, building the sectoral connective tissue for strong and enduring relationships for years to come (such as when new, cutting-edge U.S. technologies come on line in the arena of small modular reactors [SMRs]), and helping position the nuclear sectors of the non-authoritarian world for a bright future free of the depredations and malign influence of PRC and Russian suppliers. (ISN has also negotiated two Technology Safeguards Agreements [TSAs] associated with the United States participation in space launches from MTCR Partner countries, one with Brazil in 2019 and one with the United Kingdom in 2020, to facilitate U.S. commercial space launches and potential expanded space launch cooperation consistent with U.S. nonproliferation policy, export control laws and regulations, and with U.S. commitments under the MTCR. In parallel with these efforts, The United States has also signed Inter-Governmental Agreements [IGAs] on energy cooperation

with some of our NCMOU partners, specifically Poland and Romania.)

C. MTCR Modernization

Another step we have taken is to ease the burdens upon U.S. industry imposed by previous, overly rigid interpretations of 1980s-era technical standards under the Missile Technology Control Regime (MTCR) – interpretations that had no particular benefit in preventing the proliferation of MTCR-class WMD delivery systems by non-MTCR partners, but that *were* having the practical effect of constraining U.S. competitiveness in growing civilian and military markets for Unmanned Aerial Systems (UAS) and ceding this market to countries that do not subscribe to MTCR nonproliferation principles. Quite properly, we began pursuing this effort through the consensus mechanisms of the MTCR itself. Indeed, U.S. diplomats spent two years working with MTCR partners to [develop and promote a modest reformulation of UAS export standards](#) that would have allowed a small and carefully-chosen, non-WMD-threatening subset of MTCR “Category I” UAS to be exported *as if* they were “Category II” systems.

With this regime modernization effort having been stymied, primarily by one particular MTCR member within that consensus-based organization, however, the United States in early 2020 [used its national discretion](#) in implementing the MTCR-based “presumption of denial” for Category I UAS exports to adopt a similar reform in its export control policies on a unilateral basis. We continue to work with our MTCR partners to modernize and strengthen the regime in ways that preserve its relevance and keep its technical standards up to date in the modern era. We were unwilling, however, to continue to hobble U.S. defense industrial competitiveness on the basis of decades-old understandings that had been made obsolete – and indeed counterproductive, from a nonproliferation perspective – by the evolution of UAS technology and its applications.

V. Human Safety and Security in National Security Policy

As the foregoing pages should make clear, we in the T family have been uncompromising in our focus upon the protection and advancement of U.S. national security interests in the foreign policy arena. Nevertheless, we

have all the while kept our approaches firmly rooted in the values that make our Republic great, and that have for so long underpinned the United States’ aspirations and destiny on the world stage. These values have critical importance in foreign policymaking, even – or perhaps especially – in a time of global competition against ruthless adversaries who in their pursuit of power care little for matters of law, ethics, and humanity. Through fidelity to our own values, we protect the specialness of who we are and what the United States still represents in the world in this competitive era, demonstrating the imperative of ensuring that the brutal and repressive autocrats of the Eurasian mainland *fail* in their efforts to restructure the international system around themselves, and that those countries representing the rule of law and democratically accountable governance prevail.

In the T family, we work to promote the rule of law and human rights in many different ways. Most fundamentally, the various aforementioned ways in which we promote U.S. competitive strategy in the face of threats from the PRC, Russia, Iran, and North Korea work to preserve geographic, institutional, and political “space” in which democratically accountable governance and the rule of law *matter*, and in which these values remain prized as central organizing principles. This is our most critical contribution to protecting American values. Beyond this, however, we also work to ensure that the *means* by which we support U.S. strategy remain just and ethical, and that they conduce as much as possible to human security, prosperity, and happiness.

A. Nuclear Safety, Security, and Peaceful Applications

For one thing, we take human safety extremely seriously, and continue to be the world’s largest contributor to international efforts to improve safety and security in the generation of electricity by means of nuclear power – which, as a clean energy source, is itself vital to the world’s post-carbon future. In this administration, we have led international efforts to transition from high-profile promise-making at the Nuclear Security Summits into the crucial long-term project of *keeping* those promises, and of [institutionalizing nuclear security “best practices”](#) as part of the day-to-day “new normal” of routine behavior by all technology possessors. To this end, we have led a revitalization of the Nuclear Security Contact Group (NSCG), overseeing its [rededication to core principles](#), as well as successful

international efforts to push the IAEA to approach nuclear security and nuclear safety as core missions.

We also remain the world's foremost and most generous supporter of IAEA Technical Cooperation (TC) programs, and we spare no effort in [promoting the peaceful uses of nuclear technology worldwide](#) in ways that extend far beyond power generation and [into diverse arenas](#) such as human and animal health, water resource management, preservation and care of ocean environments, nuclear power infrastructure development, medical patient and worker radiation safety, agricultural productivity, and food security. Indeed, the United States is not merely the largest contributor to such projects – not only through extra-budgetary contributions to the IAEA but also through extensive “in-kind” contributions and direct bilateral assistance to countries around the world – but we are *by far* the largest contributor. And we are proud to be.

B. Securing Peace and Mitigating Civilian Harm

Another way in which we have been working to ensure that these values remain an important part of the implementation and focus of U.S. foreign and national security policy has to do with the various programs we run in the PM Bureau to help mitigate the risks of harm to civilians in armed conflicts around the world. This work has several facets.

One aspect is our work to encourage and facilitate efforts by U.S. partners to reduce the risk of civilian harm resulting from their military operations. This became official U.S. Government arms transfer policy for the first time with our revised CAT Policy in 2018, and we take this work very seriously. Among other things, under this rubric we support Advanced Target Development Initiative (ATDI) programming for the recipients of U.S. arms sales worldwide – an effort to use training and technical assistance to ensure that our security partners increasingly implement “best practices” for conducting combat target selection in ways that are consistent with IHL and that minimize the risk of harm to civilians. During 2020 alone, PM allocated \$81 million in FMF monies to this end, supporting 10 bilateral partners.

Another aspect involves our ongoing effort to clear Improvised Explosive Devices (IEDs) and other explosive remnants of war from various battlefields around the

world – a program for which PM has contributed more than \$350 million since 2015 with regard to Iraq and Syria alone. In 2019, the PM Bureau, which leads the interagency Man-Portable Air Defense Systems (MANPADS) task force – with support from the ISN Bureau's Export Control Cooperation office – addressed threats to civil aviation in Egypt presented by MANPADS, through the provision of training, intelligence support, and national action planning assistance. These various efforts have contributed in important ways to protecting innocent civilians from harm, as of course also does ISN's ongoing work in programming related to [nuclear security](#) and [preventing nuclear smuggling](#).

In the arena of U.N. Peacekeeping Operations (PKO), we have also supported U.S. values and policy priorities through PM-led initiatives to strengthen peacekeeper performance and accountability, and to provide special training for International Investigations Officers deployed with United Nations PKO units in order to handle conduct and discipline issues related to Sexual Exploitation and Abuse (SEA) problems by peacekeeping cadres. In furtherance of the United States' new Women, Peace, and Security (WPS) initiatives, PM's security assistance programs also promote the integration of women into foreign military and peacekeeping forces through a variety of training and military education programs. (We also fund conventional weapons destruction programs around the world through which women work as deminers and in delivering landmine risk education to affected communities.) These efforts provide multiple benefits, insofar as they make U.N. peacekeepers more effective at their job in stabilizing conflict areas around the world, help PKO operations conform to important principles of gender equity, give rise to leadership opportunities for women, and help protect local populations against potential abuse *by* troops assigned from various countries to United Nations PKO duty.

More broadly – whether in CCI with regard to cyberspace security, in AVC for outer space and the undersea domain, PM and ISN for the development and use of weapons with autonomous features and functions, and ISN for the transfer and use of armed drones – the T family has been at the forefront of international efforts to promote norms of responsible behavior and confidence-building measures, and to promote efforts to strengthen compliance with international humanitarian law in armed conflicts, so that the application of international law, including IHL, to military operations in these domains

remains well-understood. (We have also spoken out strongly against aspects of Russian and Chinese nuclear weapons doctrine and posture, and have pressed both of those governments to take meaningful actions to meet their obligations, under Article VI of the Nuclear Non-Proliferation Treaty, to pursue negotiations in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and to nuclear disarmament, but it is a priority for us to promote IHL compliance.)

Finally, in a little-publicized additional aspect of our work during the last four years, ISN also ran an innovative program that used NDF money to provide personal protective equipment (PPE) and training – as well as test kits usable in collecting samples in support of chemical weapons use attribution – to selected Syria-based First Responders. This equipment and training helped these First Responders meet the formidable challenges they faced during the Syrian Civil War at a time when the Assad regime in Damascus was regularly using chemical weapons against its own population.

VI. Diplomacy and Dialogue for Future Peace and Security

Even though Russia and the PRC have disappointingly decided to walk away from such engagements, the United States has continued as a leader in the pathbreaking [International Partnership on Nuclear Disarmament Verification](#) (IPNDV), which seeks to develop approaches and methodologies that would be useful in future arms control or disarmament agreements to verify that dismantlement of nuclear warheads has indeed occurred. Even beyond continuing such valuable technical engagements, however, U.S. diplomats have led the way in a major new approach to disarmament diplomacy.

Painfully aware of how geopolitical revisionism by both the PRC and Russia over the last two decades has refracted through the international community, creating a deteriorating security environment and erecting tremendous obstacles to the continuation of the progress toward nuclear disarmament that was possible in earlier years of the post-Cold War era – and of how the disarmament community agenda forged in those early years had, as a result of these shifts, become dangerously unmoored from the realities of the security environment it

aspired to reshape – the United States has also embarked upon a pathbreaking initiative [to steer global disarmament debates](#) in more productive directions. Following an internal “[Nuclear Vision Review](#)” we conducted during the summer of 2017, we announced the “[Creating an Environment for Nuclear Disarmament](#)” (CEND) Initiative in 2018 as a way to help disarmament discourse begin to address real-world security concerns in ways that could overcome persistent obstacles to further disarmament and facilitate real and sustainable progress toward that noble goal.

The first CEND plenary meeting took place in Washington, D.C., in 2019, bringing together a remarkable collection of participants representing 42 governments from across the various political divides relevant to humanity’s fraught relationship with nuclear weapons: NPT nuclear weapon states, non-nuclear-weapon states, and states not party to the NPT at all; “nuclear umbrella” alliance members as well as signatories of the Treaty on the Prohibition of Nuclear Weapons (TPNW); developed and less-developed nations; Arabs and Israelis; Indians and Pakistanis; and participants from every major region of the world. By July 2020, the [CEND process](#) had completed its preparatory work, launching substantive discussion in its three subgroups, with [each exploring a critical series of questions](#) about how to achieve and sustain real disarmament progress. At the time of writing, in fact, CEND has commenced its most exciting phase: its work in actually trying to *answer* these vital questions.

That crucial phase of CEND’s work is therefore just beginning, but we are excited about its promise, and about its success in beginning to blaze a path for the disarmament community that forthrightly admits the entanglement of the disarmament dream with the complex security dynamics of a competitive international environment, and which seeks to make disarmament progress [not by wishing these challenges away but rather by seeking to address them](#). Fully a half century ago this very year, the NPT made clear the need to approach things this way, expressing in its [Preamble](#) the desire for “the easing of international tension and the strengthening of trust between States in order to facilitate” nuclear disarmament. With CEND, we are working to fulfil this promise, returning multilateral disarmament discourse to its roots in pragmatic efforts to reduce threats, alleviate security problems, and promote stability. It is our hope

that this initiative will continue for many years, and that it will live up to its full potential in bringing creative and realistic thinking to this great endeavor.

VII. Pandemic Responsiveness

Nor has the State Department's T family of bureaus been idle in responding to the challenges presented by the COVID-19 pandemic. We have been responsible for only a very small piece of overall U.S. pandemic response, of course, with almost all aspects being managed elsewhere since that virus first swept out of the PRC into the rest of the world during the CCP's cover up of the initial explosion of virus cases in Wuhan. Nevertheless, we have worked hard to make the T family's role in pandemic response swift and effective.

In the ISN Bureau, for instance, we have rushed additional nonproliferation funding into providing personal protective equipment (PPE) and incorporating virus-mitigation training into our capacity-building work overseas, so that the pandemic does not bring to a halt longstanding high-priority U.S. work in helping countries around the world better secure their borders against the smuggling of WMD materials and advanced conventional arms, improve their ability to enforce sanctions against North Korea and Iran, and interdict dangerous cargo through efforts such as the Proliferation Security Initiative (PSI). During the pandemic, ISN biosecurity and biosafety programming has also been accelerated, including in the areas of laboratory security, pathogen storage, and laboratory health and safety "best practices," in order to reduce the impact of outbreaks or acts of bioterrorism in the future. (The training provided to foreign partners through ISN programming has also shifted into the "virtual" arena during the pandemic – and, far from slowing down, it has in some case actually accelerated, taking advantage of the ease and scalability of video participation.) Coupled with ISN's ongoing work in promoting the multilateral confidence-building measures of the Biological and Toxin Weapons Convention (BTWC), we aim to help ensure that humanity is better prepared for the *next* bio-crisis than it appears to have been for this one. We have also allocated some of our voluntary contribution to the IAEA to fund a new project that has provided more than 100 countries with COVID-19

diagnostic kits based on nuclear-derived techniques and related training.

In the PM Bureau, as the COVID-19 pandemic swept in, we also quickly made adjustments to defense trade control procedures and processes to ease the burdens of regulatory compliance for the U.S. Defense Industrial Base during prolonged workplace lockdowns and disruption, and to facilitate efficient telework during the crisis. These adjustments included reducing fees and extending International Traffic in Arms Regulations (ITAR) registrations, stepping up the use of electronic (vice paper) filings, and modifying rules related to access to technical data by qualified persons to help facilitate defense industry telework. Through such innovations, while so much of the rest of government shut down, PM's arms sales work continued apace. PM authorized partner countries to use Peacekeeping Operations-funded equipment originally provided for peacekeeping or counterterrorism purposes temporarily for domestic COVID-19 responses. This equipment included field hospitals and ambulances to treat the infected and slow the spread of the virus in Chad, Ghana, Mauritania, Rwanda, Senegal, Uganda, and Mongolia.

VIII. Conclusion: Four Years of Protecting U.S. Interests and Promoting Peace and Security

This summary of T-family activity and accomplishments over the last four years has been lengthy, at least by the standards of other contributions to the [ACIS Papers series](#). This length, however, has been necessary in order to accommodate the remarkable breadth and diversity of T-family contributions and accomplishments.

With four years on the job under enormously challenging conditions of resurgent great power competition and proliferation threats, the T family during the current administration has been doing unprecedented work to protect and advance U.S. national security interests and American prosperity, as well as to promote international peace and security more broadly. These efforts deserve to continue into the next administration, receiving steadfast and full-throated support from all the thoughtful policymakers, skilled diplomats, experienced

technical experts, and conscientious staff and loyal American patriots who together comprise the redoubtable

[champions of American diplomacy employed at the U.S. Department of State.](#)



Arms Control and International Security Papers

The Arms Control and International Security Papers are produced by the Office of the Under Secretary of State for Arms Control and International Security in order to make U.S. State Department policy analysis available in an electronically-accessible format compatible with “social distancing” during the COVID-19 crisis.